

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 February 2005 (10.02.2005)

PCT

(10) International Publication Number
WO 2005/011913 A1

- (51) International Patent Classification⁷: **B23Q 17/22**, 17/24
- (21) International Application Number:
PCT/EP2004/051513
- (22) International Filing Date: 15 July 2004 (15.07.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
BO2003A000430 17 July 2003 (17.07.2003) IT
- (71) Applicant (for all designated States except US): **MARPOSS SOCIETA' PER AZIONI** [IT/IT]; via Saliceto 13, I-40010 Bentivoglio (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **COZZARI, Alberto** [IT/IT]; via Matteotti 9/6, I-40016 San Giorgio di Piano (IT). **DALL'AGLIO, Carlo** [IT/IT]; via Brigadiere Lombardini 5, I-40050 Castello d'Argile (IT).
- (74) Common Representative: **MARPOSS SOCIETA' PER AZIONI**; Patent Department, via Saliceto 13, I-40010 Bentivoglio (IT).

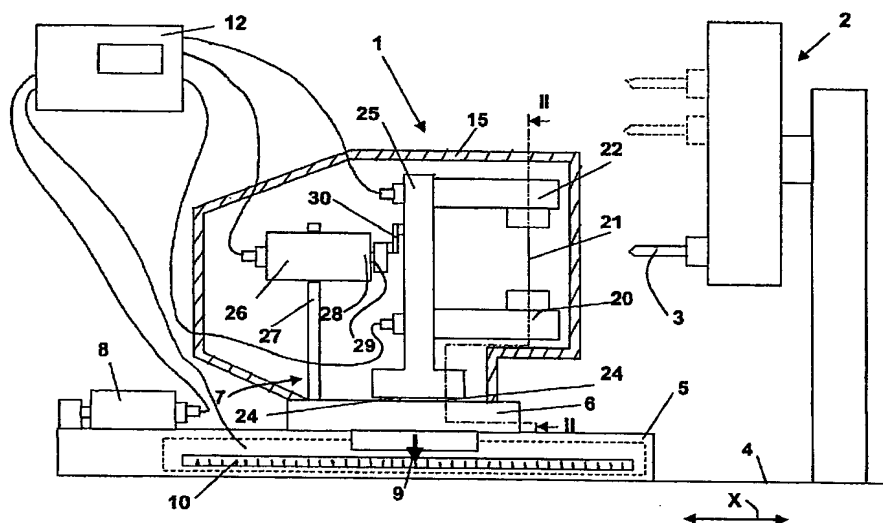
(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR THE POSITION CHECKING OF A MECHANICAL PART



(57) Abstract: An apparatus for checking the integrity of tools includes an optoelectronic system (7) with a laser beam (21), a base (6) movable along a longitudinal direction (X) for enabling displacements between tool and optoelectronic system and a device for checking the mutual position including, for example, a transducer (9, 10). A sensor (22) of the optoelectronic system detects the interruption of the beam and, on the basis of the transducer signal at said interruption and on the comparison with a known value, the integrity of the tool is determined. A coupling mechanism (24) of the optoelectronic system coupled at the base enables oscillations of the former along a transversal reference surface, that define a sensitive delimited area (33). The oscillations are controlled by means of a motor (26) and interruptions of the beam are detected and signalled by the sensor the moment that the end of the tool interferes with the sensitive delimited area.

WO 2005/011913 A1



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.